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10/775,080

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Daisuke Sakiyama

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EXAMINER

LEE, CHUN KUAN

ART UNIT

PAPER NUMBER

2181

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/775,080

Applicant(s)

SAKIYAMA ET AL.

Examiner

Chun-Kuan (Mike) Lee

Art Unit

2181

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

CONTINUED EXAMINATION UNDER 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 02/07/2007 has been entered.

RESPONSE TO ARGUMENTS

2. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection. Applicant's arguments filed 02/07/2007 with respect to claims 14-16 have been fully considered but they are not persuasive. Currently claims 1-16 are pending for examination.

3. In responding to applicant's arguments regarding the independent claim 14 rejected under 35 U.S.C. 103(a) that the combination of references failed to teach/suggest every claimed limitations, as stated on page 11. Applicant's arguments have fully been considered, but are not found to be persuasive.

It appears that the applicant is applying the argument for the rejection of independent claim 1 towards independent claim 14, as applicant appears to stated that the independent claim 14 is rejected by Utsunomiya in view of

Terajima (Remarks, p. 11, 2nd paragraph); on the contrary, the rejection is based on Utsunomiya in view of Kisaki, and further in view of Terajima. Further more, it is unclear to the examiner as to where in the preceding office action the examiner acknowledges that Terajima and Utsunomiya fail to disclose a controller as recited in claim 14. More specifically, the examiner relies on Terajima for the teaching associated with storing data in either the expansion memory or work memory based on the detection of the expansion memory, as Terajima teaches a facsimile apparatus with a printing function comprising:

a sensor (Fig. 1, ref. 119) utilized for detecting whether or not an external memory (Fig. 1, ref. 109) (e.g. expansion memory) is coupled to the control unit (Fig. 1 and col. 3, l. 11 to col. 4, l. 14); and

a controller (Fig. 1, ref. 101) that selects the storing of the received communication data in an internal RAM processing memory (Fig. 1, ref. 115) (e.g. work memory) if the sensor does not detect the presence of the external memory (e.g. expansion memory) (col. 4, ll. 14-20) and if the external memory is detected to be present, the received communication data is to be stored in the external memory (col. 3, l. 62 to col. 4, l. 4).

4. In responding to applicant's arguments for claims 14-16, the examiner will maintain position and the current rejection for claims 14-16.

I. INFORMATION CONCERNING OATH/DECLARATION

Oath/Declaration

5. The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in **37 C.F.R. 1.63**.

II. INFORMATION CONCERNING DRAWINGS

Drawings

6. The applicant's drawings submitted are acceptable for examination purposes.

III. OBJECTIONS TO THE CLAIMS

Claim Objections

7. Claims 1, 2 and 5 are objected to because of the following informalities:

in claim 1, line 4, "said processed job data" should be replace with -said processed job image data-;

in claim 1, line 11, "the processed job data" should be replace with -the processed job image data-;

in claim 2, line 5, "the job image data" should be replace with -the input job image data-; and

in claim 5, line 4, "the input job data" should be replace with -the input job image data-.

Appropriate correction is required.

IV. REJECTIONS BASED ON PRIOR ART

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Utsunomiya (US Patent 6,999,186) in view of Kisaki (US Pub.: 2003/0035142), and further in view of Terajima (US Patent 5,309,251).

9. As per claims 1 and 8, Utsunomiya teaches a data outputting printer, comprising:

a receiving unit (input/output module 3000 of Fig. 3) that receives print jobs;

a processing memory (Fig. 2, ref. 1037 and Fig. 3, ref. 1037, 3008, 3009) that processes (i.e. processes by converting job image data to raster images) input job image data (image data) for print jobs received by said receiving unit (Fig. 3 and col. 5, ll. 40-67);

an output unit (printer 1030 of Fig. 3) that, after processing of the job image data sent to said processing memory, outputs (e.g. prints) said processed job image data during a first output session (col. 8, ll. 28-40), wherein the first

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output session is resulted from either the implementing the multiple-copy print or the single-copy print as the first copy is printed on the printer;

a mounting unit for mounting an expansion memory (external memory 1043 of Fig. 2-3) used for image data storage (Fig. 3, ref. 1043, 3011, 3013), wherein the hard drive is mounted as external memory for storing print data (col. 5, ll. 5-16); and

a controller (printer controller 1031 and memory controller 1044 of Fig. 2) that, when said job image data is to be output multiple times (e.g. multiple-copy print) (col. 5, ll. 5-32; col. 6, ll. 20-44 and col. 8, ll. 28-40),

stores the job image data in a storage destination memory (e.g. either the internal memory RAM 1037 or the external hard disk 1043 of Fig. 2-3) for a second output session and beyond (col. 5, l. 40 to col. 6, l. 44), wherein the job image data is stored in either the internal memory RAM or the external hard disk for printing the first copy, the second copy and beyond, and

reads out said job image data from the storage destination memory and performs output for the second output session onward using the output unit (col. 5, l. 40 to col. 6, l. 44), as the stored job image data is read out from the corresponding storage destination memory and printed by the printer.

Utsunomiya does not teach the data outputting printer, comprising:

a detection unit that detects whether or not the expansion memory is mounted to said mounting unit; and

the controller that,

selects, one of a first storage and second storage destination memories for storing the image data of the second output session and beyond based on the detection of said detection unit; such that,

if the expansion memory is mounted, stores the processed job image data in the first storage destination memory for the second output session and beyond, and

if the expansion memory is not mounted, stores the input job image data in the second storage destination memory for the second output session and beyond; and

reads out said job image data from the selected storage destination memory and executes printing for the second copy onward via said output (printer) unit.

Kizaki teaches an image forming apparatus such as a digital copier, a facsimile machine, a printer, and a scanner ([0002]) comprising a data input/output control unit (Fig. 6, ref. 600) implementing multiple copies as a first copy is stored in and output from a primary memory device (semiconductor memory) (Fig. 6, ref. 606) and a second and following copies are stored in and output from the secondary memory device (hard disk drive: HDD) (Fig. 6, ref. 607) ([0117]-[0118]);

Utsunomiya and Kizaki are analogous art because they are from same field of endeavor as both are associated with printing of data via a printer.

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Kizaki's printing of the first copy from the primary memory device and the second and following copy from the secondary memory device into Utsunomiya's printer. The resulting combination of the references further teaches the data outputting printer, comprising:

the controller that,

prints out the first copy from the primary memory device (e.g. the second storage destination memory) as the (job) image data is stored in the primary memory device and is outputted via the printer unit; and

prints out the second and following copies from the secondary memory device (e.g. first storage destination memory) as the (job) image data is to be stored in the secondary memory device for the second and following copies and is outputted via the printer unit.

The suggestion/motivation for doing so would have been for the benefit of providing efficient transfer of image data concerning the primary memory device while using the second memory device having a larger volume as image memory (Kizaki, [0014]).

Therefore, it would have been obvious to combine Kizaki with Utsunomiya for the benefit of providing efficient transfer of image data concerning the primary memory device while using the second memory device having a larger volume as image memory to obtain the invention as specified in claims 1 and 8.

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Terajima teaches a facsimile apparatus with a printing function

comprising:

a sensor (Fig. 1, ref. 119) utilized for detecting whether or not an external memory (Fig. 1, ref. 109) is coupled to the control unit (Fig. 1 and col. 3, l. 11 to col. 4, l. 14); and

a controller (Fig. 1, ref. 101) that selects the storing of the received communication data in an internal RAM processing memory (Fig. 1, ref. 115) if the sensor does not detect the presence of the external memory (col. 4, ll. 14-20) and if the external memory is detected to be present, the received communication data is to be stored in the external memory (col. 3, l. 62 to col. 4, l. 4), and prints the received communication data from either the internal RAM processing memory or the external memory, depending where it was stored earlier (col. 4, ll. 47-64).

Utsunomiya and Terajima are analogous art because they are from the same field of endeavor as both are associated with the function of printing data.

It would have been obvious to one of ordinary skill in this art, at the time of invention, was made to include Terajima's sensor into Utsunomiya and Kizaki's printer. The resulting combination of the references further teaches data outputting printer, comprising:

the sensor (i.e. detection unit) utilized for detecting whether or not the external memory (i.e. expansion memory) has been mounted to said mounting unit; and

the controller selecting to store image data in either the primary memory device or the secondary memory device for the second output session and beyond based on the sensor's detection, such that,

if the sensor detects that the external memory is mounted, prints out the first copy from the primary memory device (e.g. second storage destination memory) as the image data is stored in the primary memory device, and stores the image data in the primary memory device into the secondary memory device (e.g. first storage destination memory) for implementing the print out of the second and following copies from the secondary memory device; and

if the sensor detects that the external memory is not mounted, stores the input (job) image into the primary memory (e.g. second storage destination memory) and prints out the second and following copies utilizing the image data stored in the primary memory (e.g. second storage destination memory); and

therefore, printing (e.g. reads out) the (job) image data from the selected storage destination memory and executes printing for the second copy onward via the printer unit.

The suggestion/motivation for doing so would have been for the benefit of ensuring that the external memory is properly connected before data transferring increasing the data transferring integrity (Terajima, col. 5, ll. 3-9), and further more, also provide the benefit of reducing the cost of the printer as memory is saved (Terajima, col. 1, l. 52 to col. 2, l. 5).

Therefore, it would have been obvious to combine Terajima with Utsunomiya and Kizaki for the benefit of ensuring that the external memory is properly connected before data transferring increasing the data transferring integrity, and further more, also provide the benefit of reducing the cost of the printer as memory is saved to obtain the invention as specified in claims 1 and 8.

10. As per claim 2, Utsunomiya, Kizaki and Terajima teach all the limitations of claim 1 as discussed above, where Terajima further teaches the data outputting printer comprising wherein when said detection unit detects that the expansion memory is mounted, said controller stores the processed job image data used for said second output session onward in said expansion memory (i.e. external memory), and when said detection unit detects that the expansion memory is not mounted, said controller stores the processed job image data used for said second output session onward in said processing memory (i.e. internal RAM) (Terajima, Fig. 3 and col. 3, l. 11 to col. 4, l. 14), wherein the job image data is stored into the external memory only if the sensor detects the presence of the external memory, if the external memory is not present, the job image data is stored in the internal RAM.

11. As per claim 3, Utsunomiya, Kizaki and Terajima teach all the limitations of claim 2 as discussed above, where Utsunomiya and Terajima further teach the data outputting printer comprising wherein if it is detected by said detection unit that the expansion memory is mounted, said controller outputs the job image

data processed in said processing memory as is for the first output session (Utsunomiya, Fig. 2-3 and Terajima, col. 3, l. 11 to col. 4, l. 14), wherein the communication result is first stored in the RAM (processing memory) then later transferred to the external memory and prior to printing, if the external memory is removed, the data is printed from the RAM.

12. As per claim 4, Utsunomiya, Kizaki and Terajima teach all the limitations of claim 1 as discussed above, where Terajima further teaches the data outputting printer comprising wherein said controller determines the storage format for the job image data used for the second output session onward in accordance with the results of the detection by said detection unit (Terajima, Fig. 6 and col. 5, ll. 29-50), wherein if data is stored on the external memory, the data would require proper formatting by the serial interface circuit for performing serial communication for data between the control unit and the external memory.

13. As per claim 5, Utsunomiya, Kizaki and Terajima teach all the limitations of claim 4 as discussed above, where Terajima further teaches the data outputting printer comprising wherein the job is a print job sent from an external device, and when the mounting of an expansion memory is detected by said detection unit, said controller stores the input job image data in said expansion memory as image data resulting from processing in said processing memory, and when the mounting of an expansion memory is not detected by the detection unit, said controller stores the input job image data in said processing memory in

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an original format existing prior to its processing in said processing memory (Terajima, Fig. 6; col. 3, l. 11 to col. 4, l. 14 and col. 5, ll. 29-50), wherein if the external memory is detected, the data is stored in the external memory after being properly processed by being formatted for serial communication and if the external memory is not detected, data is stored in the RAM without implementing the serial formatting.

14. As per claim 6, Utsunomiya, Kizaki and Terajima teach all the limitations of claim 1 as discussed above, where Utsunomiya further teaches the data outputting printer comprising at least one compression/decompression unit (i.e. compression/expand unit) that compresses data and decompresses compressed data (Utsunomiya, col. 2, ll. 8-67 and col. 7, ll. 22-32).

15. As per claim 7, Utsunomiya, Kizaki and Terajima teach all the limitations of claim 6 as discussed above, where Utsunomiya further teaches the data outputting printer comprising wherein said expansion memory stores data compressed by said at least one compression/decompression unit (Utsunomiya, col. 2, ll. 8-67 and col. 7, ll. 22-32), wherein data are compressed before being stored.

16. As per claim 9, Utsunomiya, Kizaki and Terajima teach all the limitations of claim 8 as discussed above, where Utsunomiya and Terajima further teach the data outputting printer comprising wherein when said detection unit detects that

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the expansion memory is mounted, said controller stores the image data used for printing of a second copy onward in said expansion memory, and when said detection unit detects that an expansion memory is mounted, said controller stores the image data used for printing of the second copy onward in said processing memory (Utsunomiya, Fig. 2-3 and Terajima, Fig. 3 and col. 3, l. 11 to col. 4, l. 14).

17. As per claim 10, Utsunomiya, Kizaki and Terajima teach all the limitations of claim 9 as discussed above, where Utsunomiya and Terajima further teach the data outputting printer comprising wherein if it is detected by said detection unit that the expansion memory is mounted, said controller prints out the first copy using the image data processed in said processing memory (Utsunomiya, Fig. 2-3 and Terajima, col. 3, l. 11 to col. 4, l. 14).

18. As per claim 11, Utsunomiya, Kizaki and Terajima teach all the limitations of claim 8 as discussed above, where Terajima further teach the data outputting printer comprising wherein said controller determines a storage format for image data used for the second copy onward in accordance with the results of the detection by said detection unit (Terajima, Fig. 6 and col. 5, ll. 29-50), wherein if data is stored on the external memory, the data would require proper formatting by the serial interface circuit for performing serial communication for data between the control unit and the external memory.

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19. Claims 12-13 repeat the limitations of claims 6-7 and are therefore rejected accordingly.

20. As per claims 14, Utsunomiya teaches a printer, comprising:

a receiving unit (input/output module 3000 of Fig. 3) that receives print jobs;

a work memory (RAM 1037 of Fig. 3) that includes a storage area (Fig. 3, ref. 1032, 3007) used for storing image data, as well as a processing area (Fig. 3, ref. 3008, 3009) used for processing (process by converting) image data to raster images for received print jobs (Fig. 3 and col. 5, ll. 40-67);

a printer unit (printer 1030 of Fig. 3) that prints image data after it has been processed in said processing area during (col. 5, l. 40 to col. 6, l. 44);

a mounting unit used for mounting an expansion memory (external memory 1043 of Fig. 2) used for data storage (HD 1043 of Fig. 3), wherein the hard drive is mounted as external memory for storing print data (col. 5, ll. 5-16);

a controller (printer controller 1031 and memory controller 1044 of Fig. 2) that, where the print job is a job in which multiple copies of identical images are to be printed (e.g. multiple-copy print) (col. 5, ll. 17-32; col. 6, ll. 20-44 and col. 8, ll. 28-40), printing out a first copy, a second copy and onward of the image data processed in said work memory or from an expansion memory.

Utsunomiya does not teach the printer, comprising:

a detection unit that detects whether an expansion memory has been mounted to said mounting unit; and

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the controller that,

(i) and when said detection unit detects that an expansion memory is mounted, prints out a first copy of the image data processed in said work memory and stores the image data stored in said work memory in said expansion memory and executes printing for a second copy onward via the printer unit using the image data stored in said expansion memory, and

(ii) when said detection unit detects that an expansion memory is not mounted, executes printing for the second copy onward via the printer unit using the image data stored in said work memory.

Kizaki teaches an image forming apparatus such as a digital copier, a facsimile machine, a printer, and a scanner ([0002]) comprising a data input/output control unit (Fig. 6, ref. 600) implementing multiple copies as a first copy is stored in and output from a primary memory device (semiconductor memory) (Fig. 6, ref. 606) and a second and following copies are stored in and output from the secondary memory device (hard disk drive: HDD) (Fig. 6, ref. 607) ([0117]-[0118]);

Utsunomiya and Kizaki are analogous art because they are from same field of endeavor as both are associated with printing of data via a printer.

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Kizaki's printing of the first copy from the primary memory device and the second and following copy from the secondary memory

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device into Utsunomiya's printer. The resulting combination of the references further teaches the printer comprising the controller that

prints out the first copy from the primary memory device (i.e. semiconductor memory such as the work memory) as the image data is stored in the primary memory device; and

prints out the second and following copies from the secondary memory device (i.e. external memory such as the HDD) as the image data is to be stored in the secondary memory device for the second and following copies.

The suggestion/motivation for doing so would have been for the benefit of providing efficient transfer of image data concerning the primary memory device while using the second memory device having a larger volume as image memory (Kizaki, [0014]).

Therefore, it would have been obvious to combine Kizaki with Utsunomiya for the benefit of providing efficient transfer of image data concerning the primary memory device while using the second memory device having a larger volume as image memory to obtain the invention as specified in claim 14.

Terajima teaches a facsimile apparatus with a printing function comprising:

a sensor (Fig. 1, ref. 119) utilized for detecting whether or not a external memory (Fig. 1, ref. 109) is coupled to the control unit (Fig. 1 and col. 3, l. 11 to col. 4, l. 14); and

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a controller (Fig. 1, ref. 101) that selects the storing of the received communication data in an internal RAM processing memory (Fig. 1, ref. 115) if the sensor does not detect the presence of the external memory (col. 4, ll. 14-20) and if the external memory is detected to be present, the received communication data is to be stored in the external memory (col. 3, l. 62 to col. 4, l. 4), and prints the received communication data from either the internal RAM processing memory or the external memory, depending where it was stored earlier (col. 4, ll. 47-64).

Utsunomiya and Terajima are analogous art because they are from same field of endeavor as both are associated with the function of printing data.

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Terajima's sensor into Utsunomiya and Kizaki's printer. The resulting combination of the references further teaches the printer comprising:

the sensor (i.e. detection unit) utilized for detecting whether or not the external memory (i.e. expansion memory) has been mounted to said mounting unit;

the controller that,

when the sensor detect that the external memory is mounted, prints out the first copy from the primary memory device (i.e. semiconductor memory such as the work memory and the internal RAM) as the image data is stored in the primary memory device, and

stores the image data in the primary memory device into the secondary memory device for implement the print out of the second and following copies from the secondary memory device (i.e. external memory such as the external HDD); and

when the sensor detects that the external memory is not mounted, prints out the second and following copies utilizing the image data stored in the primary memory.

The suggestion/motivation for doing so would have been for the benefit of ensuring that the external memory is properly connected before data transferring increasing the data transferring integrity (Terajima, col. 5, ll. 3-9), and further more, also provide the benefit of reducing the cost of the printer as memory is saved (Terajima, col. 1, l. 52 to col. 2, l. 5).

Therefore, it would have been obvious to combine Terajima with Utsunomiya and Kizaki for the benefit of ensuring that the external memory is properly connected before data transferring increasing the data transferring integrity, and further more, also provide the benefit of reducing the cost of the printer as memory is saved to obtain the invention as specified in claim 14.

21. As per claim 15, Utsunomiya, Kizaki and Terajima teach all the limitations of claim 14 as discussed above, where Utsunomiya further teach the data outputting printer comprising at least one compression/decompression unit that compress image data input from said processing area, decompress compressed image data and output decompressed image data to said processing area

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(Utsunomiya, col. 2, ll. 8-67 and col. 7, ll. 22-32), since data are compressed before being stored, said data must also be decompressed before being printed.

22. As per claim 16, Utsunomiya, Kizaki and Terajima teach all the limitations of claim 15 as discussed above, where Utsunomiya further teach the data outputting printer comprising wherein said expansion memory stores image data compressed by said at least one compression/decompression unit (Utsunomiya, col. 2, ll. 8-67 and col. 7, ll. 22-32), wherein data are compressed before being stored.

V. CLOSING COMMENTS

Conclusion

a. STATUS OF CLAIMS IN THE APPLICATION

The following is a summary of the treatment and status of all claims in the application as recommended by M.P.E.P. 707.07(i):

a(1) CLAIMS REJECTED IN THE APPLICATION

Per the instant office action, claims 1-16 have received a first action on the merits and are subject of a first action non-final.

b. DIRECTION OF FUTURE CORRESPONDENCES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun-Kuan (Mike) Lee whose telephone number is (571) 272-0671. The examiner can normally be reached on 8AM to 5PM.

IMPORTANT NOTE

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

April 23, 2007

Chun-Kuan (Mike) Lee
Examiner
Art Unit 2181

Mano Redmanesh
4/23/07